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TURKEY

PERFORMANCE TESTS, 1964.

Report of Central Turkey Meat
Production Tests and
Statistical Analysis of
Performance Records

Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

FOREWORD

This publication includes reports of results from each of four turkey meat production tests conducted in 1964. The tests conducted in Minnesota, North Dakota, and Pennsylvania followed the procedures for central turkey meat production tests as provided in the National Turkey Improvement Plan. The detailed provisions for the tests are contained in USDA Miscellaneous Publication No. 739. Copies of this publication may be obtained from Official State Agencies for the National Turkey Improvement Plan or by writing directly to the Poultry Research Branch, AH Division, Agricultural Research Center, Beltsville, Maryland 20705.

The California test was conducted in accordance with rules prescribed by the supervising agency. Copies of these rules may be obtained from the Poultry Improvement Commission, Route 3, 2718 No. 99 Highway, Modesto, California 95351.

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Information in this report was compiled by the Animal Husbandry Research Division, Agricultural Research Service, from data supplied by the Test Supervisors and analyzed by Biometrical Services, ARS. The publication of this report should not be construed as implying approval or endorsement by the U. S. Department of Agriculture of any of the stocks tested.

TURKEY PERFORMANCE TEST REPORTS

TESTING PROCEDURES

The procedures used by the California test differ in some respects from those used in tests following the provisions of the National Turkey Improvement Plan. The principal differences involve the traits measured and the methods of determining the average weights of the entries. The California test did not report body measurements (breast width, body depth and keel length) but did report a score on yield of breast and thigh meat, based on an evaluation of a random sample of each entry. The entries were grown separately in replicated pens, and average weights were determined by bulk weighing by pens rather than by weighing individual birds.

The tests conducted in accordance with the Plan provisions followed the same general procedures, but there were variations in test facilities and the details of the methods used. Some of the variations between these tests were as follows:

Sampling: The same methods were used by all tests in obtaining the sample of poulets for the entries. A representative of the entrant's Official State Agency selected a sample of eggs from a supply being used to produce poulets of the stock entered. A prescribed method of randomization to provide a sample that was typical of the entire supply was followed. The eggs from all entrants in each test were set in the same incubators and, from the salable poulets hatched, 100 were selected at random as the entry. The poulets were then individually identified by wing bands.

In a few cases, the egg sample did not produce enough salable poulets and the entry started with less than 100 birds. However, since the performance data were collected on an individual bird basis, these variations gave no advantage or handicap to the affected entries in the final results.

Housing: In all tests, the poulets from all entries were intermingled under the brooders. In Pennsylvania and North Dakota, the entries and sexes were separated at 6 weeks. In Minnesota, the entries were separated at 6 weeks of age. Each entry was then divided into two lots of equal numbers of toms and hens and maintained in replicate pens for the remainder of the test.

Growing Periods: There were variations between tests in the length of the growing periods. The growing periods for hens varied from 21 to 22 weeks and, for toms, from 25 to 26 weeks. The age of the birds at the time the test was terminated is indicated in each test report as the age for the final live weights.

Mortality: The mortality figures reported were based on the number of birds started and are accumulative for the periods indicated.

Live Weights: In each test, the birds were weighed individually at 12 weeks of age and again just before killing. The birds were also weighed at 6 weeks of age in the Pennsylvania test, and at 6 and 18 weeks of age in the Minnesota test.

Eviscerated Weights: The eviscerated weights reported are the weights of the fully dressed carcasses and include the weight of neck and giblets.

In Pennsylvania, the carcasses were weighed immediately after dressing, while in Minnesota and North Dakota, they were placed in chill tanks for several hours before weighing.

Body Measurements: There were also variations in the methods of making body measurements. The Minnesota test measured the live birds. The North Dakota and Pennsylvania tests measured at the New York dressed stage.

Defects: The specific defects, pendulous crop, roach back, leg weakness, and breast blisters, were recorded when observed at any time during the growing period or dressing process. However, only those defects that occurred on birds that subsequently died or were graded other than Grade A are included in the test report.

Feed Conversion: Feed efficiency was measured by all tests and was reported as the pounds of feed required to produce a pound of live turkey from one day of age to time of slaughter. Feed consumption per entry was estimated for the initial period prior to the separation of the entries. The estimated feed consumption per entry during the initial period was based on the feed conversion ratio of the intermingled unit and the weight of the entry at the end of the period. During the remainder of the test, the weight of feed consumed was recorded by entries.

The test reports include feed conversion ratios as computed by two methods. The results reported under Method 1 reflect the pounds of feed required to produce a pound of marketable turkey. This method of computation is most commonly used by commercial growers and is more likely to reflect the probable overall economic returns. However, in this method, the ability of the stock to convert feed to meat may be confounded by mortality which occurred during the growing period. Method 2 tends to eliminate the influence of mortality by adding to the weight of the marketable turkeys the weight at time of death of the birds that died before the end of the test.

EVALUATION OF RESULTS

In the evaluation of the results, no direct comparison should be made between entries in different tests. Since differences in the performance of entries in different tests may be due to variations in testing procedures, direct comparisons of results reported in this summary should be made only between entries within a test.

In comparing entries, the possibility of differences due to chance alone should be recognized. Obviously, small differences may be due to chance rather than to a genetic difference in the stocks tested. However, differences should not be ignored solely because they are small, nor should larger differences be accepted as signifying genetic differences because they are large.

It would be difficult to determine precisely what part of the difference between two entries was due to a true genetic difference in the stocks and that which was due to chance alone. Statistical procedures may be applied to test data which will indicate the probability of similar differences occurring in subsequent tests. The NTIP provides that one of these procedures, such as Duncan's Multiple Range Test, be applied to central turkey meat production tests and the results included in the national summary.

STATISTICAL SIGNIFICANCE OF DIFFERENCES

In applying Duncan's Multiple Range Test, the weights and measurements of each entry were compared to those of each other entry within a test. The differences occurring were tested to determine whether they were statistically significant. The results of the statistical analysis were reported in a line chart which was prepared as follows: (1) For each test and for each trait measured, the entry numbers (shown with the entrant's name in the tables of results) were arranged with the entry having the largest weight or measurement on the left and in descending order to the smallest on the right. (2) A line (underscore) was then drawn under the first entry number and was extended under the number of each entry which did not differ significantly from the first entry. (3) This procedure was followed for each entry in the test.

In the completed chart, those entries whose numbers are underscored by a common line were not significantly different. For example, in the following illustration, entry No. 3 was the largest but not significantly different from entries 5 and 2. Entry 5 was not significantly different from 3, 2, 4, or 9 but was significantly larger than 10, 8, 7, 1 and 6. Entry 6 was the smallest but was not significantly smaller than 7 or 1.

Entry No. 3 5 2 4 9 10 8 7 1 6

EXPLANATION OF TERMS AND ABBREVIATIONS

Entrant: In the tables of results, only the abbreviated names of the entrants and the State in which they are located are given. The complete names and addresses of all entrants appear below.

Kind of Stock:

BBB	-	Broad Breasted Bronze	SW	-	Small White
BBW	-	Broad Breasted White	BR	-	Breeder Replacement
MW	-	Medium White	SF	-	Supply Flock

Mating Procedure:

Nat.	-	Natural mating
Art.	-	Artificial insemination
Both	-	Natural mating, supplemented with artificial insemination

Feed Conversion: The figures reported represent the pounds of feed used to produce one pound of live turkey.

Method 1. Includes the weight of marketable turkeys only.

Method 2. Includes the weight of marketable turkeys, plus the weight at time of death of birds that died during the growing period and the final weight of other unmarketable birds.

Eviscerated Weight: The weight of the fully dressed birds, including the neck and giblets.

Eviscerated Yield: The eviscerated weight expressed as a percentage of the live weight.

Body Measurements:

Bréast Width	-	Measured at the widest point 1 3/4 inches above the keel.
Body Depth	-	Measured at the deepest point.
Keel Length	-	Measured as a straight line between the front and rear ends of the keel.

Breast and Thighs: Weight of breast and thigh meat and skin expressed as percentage of the eviscerated carcass weight.

Defects: Percentage of birds with defects is computed from the number of birds started.

ENTRANTS IN 1964 CENTRAL TURKEY MEAT PRODUCTION TESTS

Name and Address of Entrant	Variety	Strain or Trade Name	Mating Pro- cedure	Tests and Kind of Stock Entered			
				Calif.	Minn.	N. Dak.	Penna.
Amerine Turkey Breeding Farms, Inc. Sonora Hwy., Oakdale, California	BBB	Amerine	Art.	SF	BR		
Anderson Turkey Farm Belchertown, Massachusetts	BBB	Anderson	Art.			BR	
Andérsen Turkey Farm Belchertown, Massachusetts	BBW	Blockbuster	Art.			BR	
Browning Turkey Farms Winchester, Kentucky	BBB	Browning	Both	SF	SF	SF	
Browning Turkey Farms Winchester, Kentucky	BBW	Browning	Both		SF		
Christoffersen, Enoch S. Box 327, Turlock, California	BBB	Christoffersen	Both	SF			
Ephrata Turkey Farms, Inc. Ephrata, Pennsylvania	BBB	Marcum	Art.			SF	
Ephrata Turkey Farms, Inc. Ephrata, Pennsylvania	BBW	Nicholas	Art.			SF	

ENTRANTS IN 1964 CENTRAL TURKEY MEAT PRODUCTION TESTS (Continued)

Name and Address of Entrant	Variety	Strain or Trade Name	Mating Pro- cedure	Tests and Kind of Stock Entered			
				Calif.	Minn.	N. Dak.	Penna.
Ephrata Turkey Farms, Inc. Ephrata, Pennsylvania	MW	Wrolstad	Art.				SF
Gozzi Breeding Farms, Inc. Guilford, Connecticut	BBW	Gozzi 300	Both			SF	SF
Grange Company Box 3838, Modesto, California	BBB	Grange	Both	SF			
Grange Company Box 3838, Modesto, California	BBW	Grange	Both	SF			
Hart-Schneider Box 749, Medford, Oregon	BBB	Hart-Schneider	Nat.	SF			
Hart-Schneider Box 749, Medford, Oregon	BBW	Hart-Schneider	Nat.	SF			
Jerome Turkey Hatchery, Inc. Barron, Wisconsin	BBB	Superline B	Art.				BR
Jerome Turkey Hatchery, Inc. Barron, Wisconsin	BBW	Superline W	Art.			BR	BR
Koronis Mill Turkeys Paynesville, Minnesota	BBB	Koronis K-14	Art.		SF		
Land O'Lakes Creameries, Inc. Minneapolis, Minnesota	BBB	Kimber KB 33	Both			SF	
Regal Turkeys, Inc. Paynesville, Minnesota	BBB	Regal K-11	Art.		SF		
Rose-A-Linda Ranch Elverta, California	BBB	Rose-A-Linda	Art.	SF			SF
Rose-A-Linda Ranch Elverta, California	BBB	Experimental	Art.			SF	
Schultz, Fred W. & Son Croton Falls, New York	BBW	Schultz Male Line	Art.				BR
Shearer, Robert K. Reinholds, Pennsylvania	BBB	Shearer	Art.			SF	
Shearer, Robert K. Reinholds, Pennsylvania	SW	Shearer Midget White	Art.			SF	
Sunshine Hatchery, Inc. 2535 5th St., Sacramento, California	BBB	Kimber KB 33	Art.	SF			
Tunnel Hatchery Langhorne, Pennsylvania	BBB	Tunnel	Art.			SF	
Welkona Turkeys, Inc. Kalona, Iowa	BBB	Tonnage Topper	Nat.	SF			
Williams Turkey Breeding Farms Box 2, Oakdale, California	BBB	Big "W" Bronze	Both	SF		SF	SF
Williams Turkey Breeding Farms Box 2, Oakdale, California	BBW	Big "W" White	Both	SF		SF	SF
Winneconnet Turkey Farm Norton, Massachusetts	BBW	Winnet	Art.			SF	
Worthington Hatchery Worthington, Minnesota	BBB	Williams Big "W"	Art.		SF		
Worthington Hatchery Worthington, Minnesota	BBW	Williams Big "W"	Art.		SF		

CALIFORNIA RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST

Entrant	Strain or Trade Name	Col	Mat- ing Pro- ce- dure	Flock Size	Mor- tality End of Test	Sex	Average Live Weight (lbs)			Evis- cer- ated Yield	Feed Con- ver- sion Method 2 *
							7 Wks.	20 Wks.	26 Wks.		
1. Amerine California	Amerine	B	Art.	5,700	3.9	Toms	4.2		29.8	81.4	46.3
						Hens	3.5	15.2		81.0	3.08
2. Christoffersen California	Christoffersen	B	Both	3,000	5.6	Toms	4.3		29.3	81.1	44.6
						Hens	3.5	14.7		80.3	3.29
3. Grange California	Grange	B	Both	4,240	5.0	Toms	4.5		31.0	81.0	44.4
						Hens	3.6	15.0		80.6	3.31
4. Grange California	Grange	W	Both	2,050	8.8	Toms	4.3		29.6	81.6	44.7
						Hens	3.6	14.6		80.5	3.25
5. Hart-Schneider Oregon	Hart-Schneider	B	Nat.	5,150	5.0	Toms	3.8		26.8	81.9	44.8
						Hens	3.1	13.4		79.7	3.19
6. Hart-Schneider Oregon	Hart-Schneider	W	Nat.	800	3.4	Toms	3.8		25.1	81.7	45.3
						Hens	3.2	12.7		80.2	3.25
7. Rose-A-Linda California	Rose-A-Linda	B	Art.	2,000	5.0	Toms	4.1		28.4	81.7	46.0
						Hens	3.5	14.9		80.9	3.07
8. Sunshine California	Kimber KB-33	B	Art.	3,100	4.0	Toms	4.1		28.4	81.9	44.7
						Hens	3.4	14.4		79.6	3.20
9. Welkona Iowa	Tonnage Topper	B	Nat.	6,000	6.6	Toms	4.2		30.1	80.8	43.8
						Hens	3.5	15.2		78.6	3.28
10. Williams California	Williams "Big W"	B	Both	11,600	8.8	Toms	4.3		30.5	81.8	45.1
						Hens	3.6	15.8		79.9	3.19
11. Williams California	Williams "Big W"	W	Both	6,500	7.2	Toms	3.9		28.0	82.0	44.7
						Hens	3.6	14.4		80.0	3.20
Average Bronze		B			5.5	Toms	4.2		29.3	81.5	45.0
Average White		W			6.5	Hens	3.5	14.8		80.1	3.20
Average All Entries		B & W			5.8	Toms	4.0		27.6	81.8	44.9
						Hens	3.5	13.9		80.2	3.23
						Toms	4.1		28.8	81.5	45.0
						Hens	3.5	14.6		80.1	3.21

Statistical Significance of Differences Between Entries

Since the individual bird data was not reported, the analytical procedure used to determine the statistical significance between entries in other tests could not be applied with equal validity to the results of this test.

MINNESOTA CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST

Entrant	Strain or Trade Name	Color	Mating Procedure	Size Flock from which Sample Taken	Sex	Average Live Weight (lbs)					
						6 Weeks	12 Weeks	18 Weeks	21 Weeks	Weeks	
1. Amerine California	Amerine Pure	B	Art.	25,000	Toms Hens	3.3 2.7	10.5 8.5	13.8	22.6 16.0		27.7
2. Browning Kentucky	Browning	B	Both	38,600	Toms Hens	3.4 2.8	10.4 8.0	12.9	21.7 15.3		26.5
3. Browning Kentucky	Browning	W	Both	4,370	Toms Hens	3.4 2.9	10.7 8.1	12.8	21.9 14.9		26.8
4. Gozzi Connecticut	Gozzi Line 300	W	Both	4,200	Toms Hens	3.3 2.7	10.2 7.8	12.7	21.5 14.7		26.1
5. Koronis Minnesota	Koronis K-14	B	Art.	3,600	Toms Hens	3.3 2.7	9.9 8.2	13.0	21.2 15.4		26.4
6. Regal Minnesota	Regal K-11	B	Art.	2,000	Toms Hens	3.4 2.8	10.5 8.3	13.7	22.0 16.2		27.0
7. Worthington Minnesota	Williams "Big W"	B	Art.	10,000	Toms Hens	3.8 3.0	11.1 8.4	13.9	23.0 16.2		27.7
8. Worthington Minnesota	Williams "Big W"	W	Art.	7,000	Toms Hens	3.5 3.1	10.5 8.3	13.1	21.5 15.4		26.5
Avg. Bronze Entries		B			Toms Hens	3.4 2.8	10.5 8.3	13.5	22.1 15.8		27.1
Avg. White Entries		W			Toms Hens	3.4 2.9	10.5 8.1	12.9	21.6 15.0		26.5
Average All Entries		B & W			Toms Hens	3.4 2.8	10.5 8.2	13.2	21.9 15.5		26.8

Statistical Significance of Differences Between Entries

Final Live Weight

Toms

Entry No.	7	1	6	3	2	8	5	4
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Hens

Entry No.	6	7	1	5	8	2	3	4
-----------	---	---	---	---	---	---	---	---

Eviscerated Weight

Toms

Entry No.	7	1	6	5	3	2	8	4
-----------	---	---	---	---	---	---	---	---

Hens

Entry No.	1	7	6	5	8	2	3	4
-----------	---	---	---	---	---	---	---	---

Eviscerated Yield

Dressing percentage was reported by entries only, not by individual birds; therefore this method of analysis could not be applied.

MINNESOTA CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST

Eviscerated Weight (lbs.)	Yield (%)	Feed Conversion		Breast Width (In.)	Body Depth (In.)	Keel Length (In.)	Mortality			Percent with:				Entrant
		Method 1	Method 2				Weeks (%)	6 Weeks (%)	End of Test (%)	Pendulous Crop	Roach Back	Leg Weakness	Breast Blisters	
23.6	85.1	3.55	3.53	4.5 4.0	9.6 7.8	7.3 6.1		0.0	1.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	1. Amerine
13.5	84.4													
22.4	84.5	3.75	3.67	4.3 3.6	9.3 7.8	7.4 6.2		3.5	6.5	2.1 2.1	0.0 0.0	0.0 0.0	0.0 0.0	2. Browning
12.6	82.4													
22.6	84.3	3.53	3.50	4.4 3.6	9.4 7.6	7.7 6.0		0.0	2.0	4.1 2.0	0.0 0.0	0.0 0.0	0.0 0.0	3. Browning
12.0	80.5													
22.1	84.7	3.79	3.76	4.2 3.5	9.4 7.7	7.5 5.9		0.0	2.0	0.0 3.4	0.0 0.0	0.0 0.0	0.0 0.0	4. Gozzi
11.9	81.0													
22.8	86.4	3.71	3.60	4.6 3.8	9.4 7.5	7.2 5.8		1.7	5.7	0.0 0.0	0.0 0.0	0.0 0.0	2.5 0.0	5. Koronis
12.9	83.8													
23.0	85.2	3.47	3.46	4.5 3.9	9.3 7.7	7.5 6.1		0.9	1.9	2.5 2.4	0.0 0.0	0.0 0.0	1.9 0.0	6. Regal
13.4	82.7													
23.8	85.9	3.65	3.51	4.4 3.8	9.4 7.8	7.4 6.2		4.3	9.3	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	7. Worthington
13.5	83.3													
22.3	84.2	3.79	3.71	4.4 3.8	9.2 7.7	7.3 5.9		0.0	2.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	8. Worthington
12.7	82.5													
23.1	85.2	3.63	3.55	4.5 3.8	9.4 7.7	7.4 6.1		2.1	4.9	0.9 0.9	0.0 0.0	0.0 0.0	0.9 0.0	Avg. Bronze Entries
13.2	83.5													
22.3	84.2	3.70	3.66	4.3 3.6	9.3 7.7	7.5 5.9		0.0	2.0	1.4 1.8	0.0 0.0	0.0 0.0	0.0 0.0	Avg. White Entries
12.2	81.3													
22.8	85.1	3.66	3.59	4.4 3.8	9.4 7.7	7.4 6.0		1.3	3.8	1.1 1.2	0.0 0.0	0.0 0.0	0.6 0.0	Average All Entries
12.8	82.6													

Statistical Significance of Differences Between Entries

Breast Width									
Toms	Entry No.	5	1	6	7	3	8	2	4
Body Depth									
Toms	Entry No.	1	4	3	7	5	6	2	8
Keel Length									
Toms	Entry No.	3	6	4	7	2	8	1	5
Hens									
Hens	Entry No.	7	2	1	8	6	4	3	5

NORTH DAKOTA CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST

Entrant	Strain or Trade Name	Color	Mating Procedure	Size Flock from which Sample Taken	Sex	Average Live Weight (lbs)					
						Weeks	12 Weeks	Weeks	22 Weeks	Weeks	
1. Browning Kentucky	Browning	B	Both	38,600	Toms Hens		11.2 8.8		26.6 17.7		31.7
2. Jerome Wisconsin	Superline White	W	Both		Toms Hens		9.9 8.5		24.3 16.7		30.4
3. Land-O'Lakes Minnesota	Kimber KB-33	B	Both	60,000	Toms Hens		10.2 8.2		24.5 15.9		29.7
4. Rose-A-Linda California	Experimental	B	Art.	600	Toms Hens		10.3 8.6		25.4 17.2		31.5
5. Williams California	Williams "Big W"	B	Both	20,000	Toms Hens		11.7 8.9		29.2 17.7		33.1
6. Williams California	Williams "Big W"	W	Both	6,500	Toms Hens		10.6 8.4		26.3 16.8		32.1
Avg. Bronze Entries		B			Toms Hens		10.9 8.6		26.4 17.1		31.5
Avg. White Entries		W			Toms Hens		10.3 8.5		25.3 16.8		31.3
Average All Entries		B & W			Toms Hens		10.7 8.6		26.1 17.0		31.4

Statistical Significance of Differences Between Entries

Final Live Weight

Toms
 Entry No. 5 6 1 4 2 3

Hens
 Entry No. 1 5 4 6 2 3

Eviscerated Weight

Toms
 Entry No. 5 6 4 1 2 3

Hens
 Entry No. 5 1 4 6 2 3

Eviscerated Yield

Toms
 Entry No. 4 2 6 1 3 5

Hens
 Entry No. 4 6 5 3 2 1

NORTH DAKOTA CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST

Eviscerated Weight (lbs.)		Feed Conversion		Breast Width (In.)	Body Depth (In.)	Keel Length (In.)	Mortality			Percent with:				Entrant
		Method 1	Method 2				2 Weeks (%)	8 Weeks (%)	End of Test (%)	Pendu- lous Crop	Roach- Back	Leg Weak- ness	Breast Blisters	
27.2 14.4	85.7 81.6	3.91 3.43		8.4 5.9	10.1 7.9	8.2 6.6	6.0 4.0	10.0 12.0	20.0 16.0					1. Browning
26.1 13.8	86.0 82.4	3.64 3.72		8.2 5.2	9.9 8.0	7.8 6.2	0.0 2.0	14.0 12.0	18.0 14.0					2. Jerome
25.3 13.1	85.2 82.6	3.71 4.16		8.1 5.8	9.7 7.7	7.7 6.3	8.0 6.5	26.0 8.7	28.0 10.8					3. Land-O'Lakes
27.5 14.4	87.3 84.0	3.61 3.85		8.9 6.3	9.5 7.7	7.6 6.4	8.0 14.6	12.0 22.0	20.0 24.4					4. Rose-A-Linda
28.0 14.7	84.7 83.1	3.44 3.40		8.5 6.0	9.9 7.8	8.0 6.4	8.2 4.0	18.4 14.0	30.6 20.0					5. Williams
27.6 14.0	85.8 83.6	3.60 3.56		8.6 5.4	9.7 7.8	7.8 6.1	6.0 6.3	14.0 10.4	28.0 12.5					6. Williams
27.0 14.2	85.7 82.8	3.67 3.71		8.5 6.0	9.8 7.8	7.9 6.4	7.6 7.3	16.6 14.2	18.8 17.8					Avg. Bronze Entries
26.9 13.9	85.9 83.0	3.62 3.64		8.4 5.3	9.8 7.9	7.8 6.2	3.0 4.2	14.0 11.2	23.0 13.3					Avg. White Entries
27.0 14.1	85.8 82.9	3.65 3.69		8.5 5.8	9.8 7.8	7.9 6.3	6.0 6.2	15.7 13.2	24.1 16.3					Average All Entries

Statistical Significance of Differences Between Entries

Breast Width

Toms		4	6	5	1	2	3
Entry No.							
Hens		4	5	1	3	6	2
Entry No.							

Body Depth

Toms		1	5	2	6	3	4
Entry No.							
Hens		2	1	5	6	3	4
Entry No.							

Keel Length

Toms		1	5	2	6	3	4
Entry No.							
Hens		1	5	4	3	2	6
Entry No.							

CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST OF PENNSYLVANIA

Entrant	Strain or Trade Name	Color	Mating Procedure	Size Flock from which Sample Taken	Sex	Average Live Weight (lbs)				
						6 Weeks	Weeks	12 Weeks	Weeks	22 Weeks
1. Anderson Massachusetts	Anderson	B	Art.	800	Toms Hens	3.2 2.6		12.3 9.4		19.9 34.0
2. Anderson Massachusetts	Blockbuster	W	Art.	800	Toms Hens	3.0 2.5		12.6 9.4		18.2 31.8
3. Browning Kentucky	Browning	B	Both	38,600	Toms Hens	3.3 2.6		11.8 8.5		16.8 31.2
4. Ephrata Pennsylvania	Marcum	B	Art.	4,000	Toms Hens	2.6 2.1		10.2 7.8		15.6 28.9
5. Ephrata Pennsylvania	Nicholas	W	Art.	3,000	Toms Hens	3.1 2.5		11.3 8.9		17.2 30.9
6. Ephrata Pennsylvania	Wrolstad Med-White	W	Art.	3,000	Toms Hens	2.6 2.1		9.5 7.3		12.1 22.8
7. Gozzi Connecticut	Gozzi Line 300	W	Both	7,200	Toms Hens	3.0 2.4		10.5 8.9		16.5 29.6
8. Jerome Wisconsin	Superline Bronze	B	Art.	3,000	Toms Hens	3.1 2.5		11.0 8.7		18.3 31.8
9. Jerome Wisconsin	Superline White	W	Art.	1,700	Toms Hens	3.0 2.4		10.5 9.0		17.0 29.7
10. Rose-A-Linda California	Rose-A-Linda	B	Art.	3,000	Toms Hens	3.0 2.4		11.4 8.9		17.9 32.0
11. Schultz New York	Schultz Male-Line	W	Art.	1,100	Toms Hens	2.8 2.3		10.9 8.1		16.7 29.3
12. Shearer Pennsylvania	Shearer	B	Art.	3,000	Toms Hens	3.0 2.4		11.3 8.7		17.2 30.9
13. Shearer Pennsylvania	Shearer Midget-White	W	Art.	180	Toms Hens	2.5 2.1		8.5 6.7		12.4 22.4
14. Tunnel Pennsylvania	Tunnel	B	Art.	1,500	Toms Hens	2.8 2.3		10.3 8.2		16.6 28.6
15. Williams California	Williams "Big W"	B	Both	20,000	Toms Hens	3.2 2.6		11.8 9.4		18.3 32.5
16. Williams California	Williams "Big W"	W	Both	6,500	Toms Hens	3.1 2.5		12.5 8.8		17.1 31.5
17. Winneconnet Massachusetts	Winnet	W	Art.	2,900	Toms Hens	2.9 2.4		10.0 8.2		15.5 27.8
Avg. Bronze Entries		B			Toms Hens	3.0 2.4		11.3 8.7		17.6 31.2
Avg. White Entries		W			Toms Hens	2.9 2.4		10.7 8.4		15.9 28.4
Average All Entries		B & W			Toms Hens	3.0 2.4		11.0 9.7		16.7 29.7

CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST OF PENNSYLVANIA

Eviscerated Weight (lbs.)	Yield (%)	Feed Conversion		Breast Width (In.)	Body Depth (In.)	Keel Length (In.)	Mortality			Percent with:				Entrant
		Method 1	Method 2				2 Weeks (%)	8 Weeks (%)	End of Test (%)	Pendulous Corp	Roach Back	Leg Weakness	Breast Blisters	
28.3	83.0	3.77	3.60	7.6	8.6	7.7	1.6	1.6	5.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 3.3	1. Anderson
16.2	81.2	3.48	3.48	6.2	7.0	6.7								
26.5	83.2	3.77	3.77	7.0	8.8	7.3		0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	2. Anderson
14.9	81.6	3.52	3.44	5.6	7.1	6.3								
25.7	82.4	3.80	3.79	6.8	8.9	7.8	0.8	0.8	3.5	0.0 0.0	0.0 0.0	0.0 0.0	0.0 1.7	3. Browning
13.5	80.3	3.88	3.79	5.2	6.9	6.5								
24.3	83.9	3.67	3.61	7.2	8.5	7.6	3.3	4.1	6.8	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	4. Ephrata
12.7	81.6	3.55	3.55	5.7	6.7	6.3								
25.8	83.3	3.64	3.60	6.9	8.9	7.5	1.6	1.6	5.8	0.0 0.0	0.0 1.7	0.0 0.0	0.0 0.0	5. Ephrata
14.0	81.8	3.70	3.65	5.4	7.1	6.2								
18.7	82.7	3.93	3.91	6.4	7.7	6.2	1.6	4.1	6.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	6. Ephrata
9.7	80.0	3.92	3.82	4.8	6.1	5.5								
24.2	81.7	3.92	3.78	6.4	9.0	7.3	0.0	0.8	3.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	7. Gozzi
13.4	81.3	3.74	3.74	5.0	7.2	6.4								
27.2	85.4	3.54	3.43	7.8	8.5	7.5	1.6	2.5	7.8	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	8. Jerome
15.2	83.1	3.46	3.43	6.3	6.8	6.8								
24.4	82.2	3.76	3.68	6.5	9.0	7.4	2.5	4.1	7.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	9. Jerome
13.7	80.6	3.91	3.83	5.0	7.2	6.5								
27.0	84.5	3.66	3.52	7.7	8.6	7.6	0.0	0.0	2.8	0.0 1.7	0.0 0.0	0.0 0.0	0.0 0.0	10. Rose-A-Linda
14.7	82.2	3.49	3.49	6.2	6.8	6.6								
24.8	84.2	3.70	3.66	7.2	8.3	7.2	0.8	1.6	3.5	0.0 0.0	0.0 1.7	0.0 0.0	0.0 0.0	11. Schultz
13.8	82.3	3.55	3.55	5.6	6.9	6.2								
26.2	84.6	3.70	3.63	7.7	8.5	7.5	2.5	3.3	5.3	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	12. Shearer
14.1	82.0	3.49	3.49	6.4	6.7	6.5								
18.3	82.6	3.87	3.85	6.5	7.6	6.4	2.5	3.3	4.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	13. Shearer
10.0	80.9	3.93	3.93	4.9	6.1	5.4								
24.1	84.3	3.61	3.51	7.2	8.5	7.4	2.5	2.5	6.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	14. Tunnel
13.5	81.7	3.58	3.58	5.7	7.0	6.7								
27.2	83.7	3.82	3.75	7.4	9.0	7.9	0.8	0.8	2.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	15. Williams
15.0	82.2	3.59	3.59	5.6	7.0	6.7								
26.1	83.0	3.70	3.64	7.0	8.8	7.4	0.8	2.5	7.6	0.0 0.0	0.0 0.0	0.0 0.0	0.0 1.7	16. Williams
13.8	80.6	3.76	3.71	5.4	7.1	6.2								
23.2	83.1	3.68	3.64	6.5	8.8	7.2	0.0	0.0	4.3	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	17. Winneconnet
12.5	80.8	3.69	3.69	4.9	7.0	6.2								
26.3	84.0	3.70	3.61	7.4	8.6	7.6	1.6	2.0	5.1	0.0 0.2	0.0 0.0	0.0 0.0	0.0 0.6	Avg. Bronze Entries
14.4	81.8	3.57	3.55	5.9	6.9	6.6								
23.6	82.9	3.77	3.73	6.7	8.5	7.1	1.1	2.0	5.1	0.0 0.0	0.0 0.4	0.0 0.0	0.0 0.2	Avg. White Entries
12.9	81.1	3.75	3.70	5.2	6.9	6.1								
24.8	83.4	3.74	3.67	7.0	8.6	7.3	1.3	2.0	5.1	0.0 0.1	0.0 0.2	0.0 0.0	0.0 0.4	Average All Entries
13.6	81.4	3.66	3.63	5.5	6.9	6.3								

CENTRAL RANDOM SAMPLE TURKEY MEAT PRODUCTION TEST OF PENNSYLVANIA

Statistical Significance of Differences Between Entries

Final Live Weight

Toms
Entry No. 1 15 10 2 8 16 3 12 5 9 7 11 4 14 17 6 13

Hens
Entry No. 1 15 8 2 10 12 5 16 9 3 11 14 7 4 17 13 6

Eviscerated Weight

Toms
Entry No. 1 15 8 10 2 12 16 5 3 11 9 4 7 14 17 6 13

Hens
Entry No. 1 8 15 2 10 12 5 16 11 9 14 3 7 4 17 13 6

Eviscerated Yield

Toms
Entry No. 8 12 10 14 11 4 15 5 2 17 16 1 6 13 3 9 7

Hens
Entry No. 8 11 10 15 12 5 14 2 4 7 1 13 17 16 9 3 6

Breast Width

Toms
Entry No. 8 10 12 1 15 4 11 14 2 16 5 3 13 17 9 7 6

Hens
Entry No. 12 8 10 1 14 4 11 15 2 16 5 3 9 7 17 13 6

Body Depth

Toms
Entry No. 15 9 7 5 3 2 17 16 10 1 14 12 8 4 11 6 13

Hens
Entry No. 9 7 16 5 2 14 15 1 17 11 3 10 8 12 4 6 13

Keel Length

Toms
Entry No. 15 3 1 10 4 12 8 5 16 14 9 7 2 17 11 13 6

Hens
Entry No. 8 1 15 14 10 12 3 9 7 4 2 11 17 16 5 6 13

1964 TURKEY MEAT PRODUCTION TESTS AND SUPERVISORS

California Random Sample Turkey Meat Production Test
(Superintendent: Emery A. Johnson, Route 3, 2718 No. 99 Highway, Modesto 95351)

Minnesota Central Random Sample Turkey Meat Production Test
(Supervisor: Robert E. Moehrle, 430 State Office Building, St. Paul 55101)

North Dakota Central Random Sample Turkey Meat Production Test
(Supervisor: Glenn E. Harris, N. D. Poultry Improvement Board, State Capitol,
Bismarck 58501)

Central Random Sample Turkey Meat Production Test of Pennsylvania
(Supervisor: Charles W. Dorsey, Department of Agriculture, Harrisburg 17120)

STOCKS ENTERED IN 1964 TURKEY MEAT PRODUCTION TESTS

Strain or Trade Name	Tests Entered				Strain or Trade Name	Tests Entered			
	Calif.	Minn.	N. Dak.	Penna.		Calif.	Minn.	N. Dak.	Penna.
<u>Bronze</u>									
Amerine	X	X			Anderson Blockbuster				X
Anderson				X	Browning		X		
Browning		X	X	X	Gozzi		X		X
Christoffersen	X				Grange		X		
Grange	X				Hart-Schneider		X		
Hart-Schneider	X				Jerome Superline W			X	X
Jerome Superline B				X	Nicholas				X
Kimber KB-33	X		X		Schultz Male Line				X
Koronis K-14		X			Shearer Midget White				X
Marcum				X	Williams Big "W"	X	X	X	X
Regal K-11		X			Winnet				X
Rose-A-Linda	X			X	Wrolstad Medium White				X
Rose-A-Linda Experimental			X						
Shearer				X					
Tunnel				X					
Welkona	X								
Williams Big "W"	X	X	X	X					

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